

ITEM	BASIS*
CADMIUM	20 Mg/dSCM
CO	50ppm
DIOXIN/FURAN	13ng/dSCM
HYDROGEN CHLORIDE	25ppm
LEAD	200Mg/dSCM
MERCURY	80Mg/dSCM
NITROGRN OXIDES	120ppm
PARTICULATE	24Mg/dSCM
SULFER DIOXIDE	30ppm

ITEM	BASIS
FLOW	61,200 ACFM
TEMP	250 F

ITEM	BASIS*
ACTIVATED CARBON	30 lbs/HR
LIMESTONE	150 lbs/HR

\*BASED ON CURRENT OPERATION'S RESPONSE TO C.E.M.'S READINGS TO CONTROL SO<sub>2</sub>

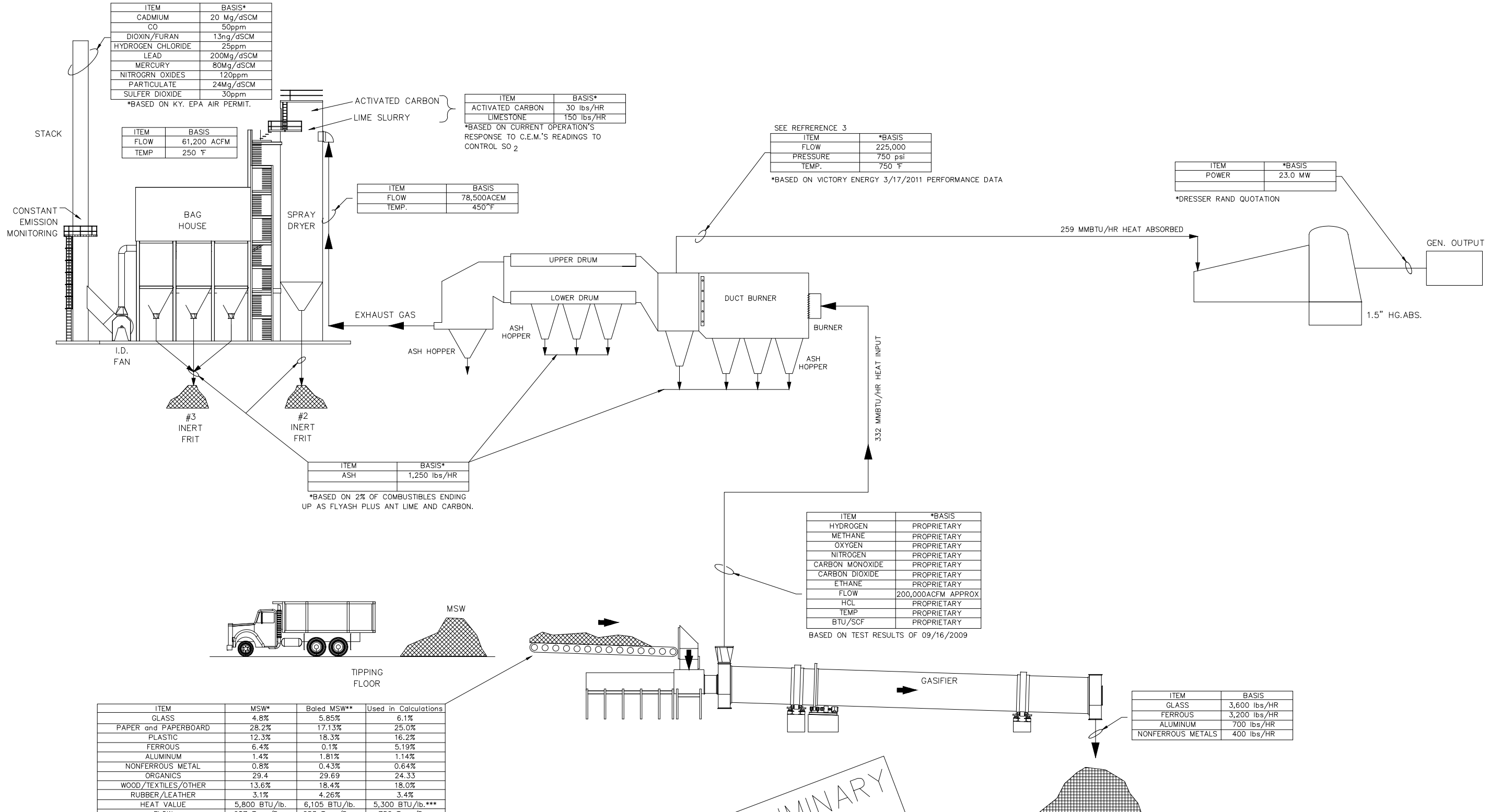
SEE REFERENCE 3

ITEM	*BASIS
FLOW	225,000
PRESSURE	750 psi
TEMP.	750 F

\*BASED ON VICTORY ENERGY 3/17/2011 PERFORMANCE DATA

ITEM	*BASIS
POWER	23.0 MW

\*DRESSER RAND QUOTATION



ITEM	BASIS*
ASH	1,250 lbs/HR

\*BASED ON 2% OF COMBUSTIBLES ENDING UP AS FLYASH PLUS ANT LIME AND CARBON.

ITEM	*BASIS
HYDROGEN	PROPRIETARY
METHANE	PROPRIETARY
OXYGEN	PROPRIETARY
NITROGEN	PROPRIETARY
CARBON MONOXIDE	PROPRIETARY
CARBON DIOXIDE	PROPRIETARY
ETHANE	PROPRIETARY
FLOW	200,000ACFM APPROX
HCL	PROPRIETARY
TEMP	PROPRIETARY
BTU/SCF	PROPRIETARY

BASED ON TEST RESULTS OF 09/16/2009

ITEM	MSW*	Baled MSW**	Used in Calculations
GLASS	4.8%	5.85%	6.1%
PAPER and PAPERBOARD	28.2%	17.13%	25.0%
PLASTIC	12.3%	18.3%	16.2%
FERROUS	6.4%	0.1%	5.19%
ALUMINUM	1.4%	1.81%	1.14%
NONFERROUS METAL	0.8%	0.43%	0.64%
ORGANICS	29.4%	29.69%	24.33%
WOOD/TEXTILES/OTHER	13.6%	18.4%	18.0%
RUBBER/LEATHER	3.1%	4.26%	3.4%
HEAT VALUE	5,800 BTU/lb.	6,105 BTU/lb.	5,300 BTU/lb.***
FLOW	687 Tons/Day	653 Tons/Day	752 Tons/Day

\* EPA REPORT Nov. 2009, MSW GENERATION, RECYCLING and DISPOSAL IN THE U.S., TABLE 1  
 \*\* EPA REPORT Nov. 2009 with FERROUS MATERIAL REMOVED BEFORE BALING AT TRANSFER STATIONS  
 \*\*\*ADJUSTED HEAT VALUE CORRESPONDING TO 90% OF REFERENCE VALUE, USED FOR FURTHER CALCULATIONS

**Proprietary Information**

**PRELIMINARY**  
 June 1, 2011

CLASSIFICATION  
 METAL & GLASS RECOVERY  
 #1 STERILE MINERAL FRIT

PROJECT TITLE:  
**750 TON'S of MSW per DAY GASIFICATION SYSTEM  
 PROCESS FLOW DIAGRAM**

DRAWING TITLE:  
**HEAT BALANCE DIAGRAM**

	DRAWN: B.Young	APPROVED: G. Showers
	CHECKED: G. Showers	DATE: 5/3/2011
	DRAWING NUMBER G110429	
CINCINNATI OFFICE • 625 EDEN PARK DR, SUITE 520, CINCINNATI, OH 45202 GAI DRAWING FILE NO. XXXXXXX-XX-XXX-XX-X-XXXX		SHT. NO. 1 OF 1 REV

NO.	DATE	DWN	CHKD	APPVD	DESCRIPTION
REVISIONS					

FILE PLOT DATE stamp Jun 03, 2011 - 9:31am

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GAI CAD FILE: P:\CIN\2011\G110429.00 RST basic design\PRF\GAI Dwg\Current Mech Dwg\AutoCad Drawings\Flow Sheets 6-3-2011.dwg